ITD/ACEC IDAHO MATERIALS LIAISON COMMITTEE

MINUTES OF MEETING
September 12, 2007

Guest Speaker

Branden Reall, Tensar Corporation, presented an overview of recent results by ITASCA and the University of Illinois on the use of grids in pavements.

Question was asked regarding cost. Mr. Reall indicated that cost is $2.20 - $3.20 SY installed. Contractor added cost can be very high, but actual installation cost should be approximately $0.15 SY.

Question was asked regarding sole source. Mr. Reall responded that it must be sole source, performance based. Some applications allow performance based specifications, in which case the owner has a choice.

Subcommittee Reports

There were no subcommittee reports.

DRIP Program

ITD gave an overview of the DRIP (Drainage Requirements in Pavement) program. The program is included with M-E Pavement Design software that is now available and provides several resources. It uses the same principles as doing it by hand. Mr. Dehlin gave an example of how the program works using a “Type A Base” material. The program provides another tool to evaluate drainage.

Section 550 on Drainable Pavements was mentioned. The requirements have been adjusted to validate certain applications.

MAPS Program

ITD presented an overview of the MAPS program and a recent project issue regarding the contractor's calculated pay factor.

LSL = 60
USL = 74

$$Q_u = \frac{USL - \bar{x}}{S} \Rightarrow \frac{QASP}{Table\,106.03-2} \Rightarrow Quality\ \ Level \Rightarrow QASP\ \ Table\ 106.03-3$$

$$Q_L = \frac{\bar{x} - LSL}{S} \qquad P_u \quad P_L \qquad = (P_u + P_L) - 100 \qquad Pay\ \ Factor$$

3/8"

60

60

60

$\bar{x} = 60$

$S = 0$

$PF = 1.05 \quad 0.88$

$\underline{AC}\%$ $\quad JMF\ \ 5.46 \quad or \quad 5.5\ ?$ $\quad \begin{bmatrix} 5.1 & 5.9 \\ 5.06 & 5.8 \end{bmatrix}$

5.13	$\Rightarrow$	*Tenth*	0.97	5.17	$\Rightarrow$	*Tenth*	1.05	5.17	$\Rightarrow$	*Tenth*	1.0
5.15			1.05	5.18				5.15			
5.31				5.36				5.36			

- Issues
  - What happens when the Standard Deviation, S = 0? This is handled in the program with Q_u = 100
  - When LSL or USL = $\bar{x}(average)$, $Q_u \neq 100$ This fixed the flaw in the program.
  - AC - Asphalt Content rounding issue:
    - MAP program uses tenths, not hundredths, and the pay factor calculation is sensitive to significant digits.
    - The program should be used with tenths. ITD will restate the standard regarding significant digit accuracy based on reported values.

ME Design Procedure Discussion

ITD introduced a discussion of the M-E Pavement Design procedures. The following points were discussed:

- In January the Materials Manual was changed to allow alternate pavement design methods, if justified and compared to the approved method.
- M-E Design must be accompanied with the approved design method, then explained why M-E Design Method is preferred.
- AASHTO 1993 methods are quite conservative, considerably smaller concrete sections.
- ITD is pursuing research through Idaho universities to help justify the MEPDG. ITD is not specifically investing money to justify the MEPDG models.
- Part of ITD's validation should include terminal serviceability and more advanced traffic input.

Practical Design Initiative

ITD presented ITD's Practical Design Initiative. A copy of the ITD Director's memo regarding Practical Design Initiative is appended to and made a part of these minutes. The Director selected Practical Design as another way to get through the current funding crisis. Concept originated with Missouri DOT. The following key points were mentioned:

- Practical Design allows ITD Districts to use justification for adjusting/waiving current requirements
- Allow for accelerated design process
- Allows for Local roads, turn bays, bridge approaches to be designed with established sections
- Allows local jurisdictions to use typical roadway section instead of requiring a new design
- Allows for reduction in materials testing and certifications
- Practical issues – contractors vs. ITD inspectors ideas on testing
- ITD's goal is to achieve a 10 percent savings
- Consultants are being challenged to find practical design solutions on projects
- When ITD classifies a project as "simple," the districts will have the responsibility to approve the design; applies to projects not on the federal highway system
- Many projects will not come through headquarters until the bid documents are submitted, pushing responsibility down to the districts; headquarters will have more auditory and support responsibility

The next meeting is scheduled for 12:00 noon on Wednesday, December 5, 2007.